

Additionally, the Examiner objected to claims 35 and 43 as being dependent upon a rejected base claim but indicated that they would be allowable if rewritten in independent form including all of the recitations of the base claim and any intervening claims. The Examiner also indicated that claims 30 and 41 were allowed (Office Action, p. 6). Applicants thank the Examiner for indicating allowable subject matter. Applicants, however, respectfully point out that claim 43 depends from allowed claim 41 and, hence, should also be allowable. Thus, Applicants request that the Examiner withdraw the objection to claim 43. Also, Applicants respectfully submit that claim 35 is allowable as currently written for at least the reason advanced hereafter.

By this Amendment, Applicants propose amending claims 1, 2, 5, 31, 34, 36, 38, 42 and 44 to more appropriately define the invention. Upon entry of this Amendment, claims 1, 2, and 5-44 will be pending with claims 24-29 being withdrawn from further consideration. Applicants respectfully submit that the this Amendment places the subject application in condition for allowance and, therefore, should allow for immediate action by the Examiner.

#### **Response to Drawing Requirements and Objections**

The Examiner indicated that the proposed drawing correction filed March 6, 2002 has been approved and required that corrected drawings be filed in response to the Final Office Action (Office Action, p. 2). In response, Applicants are filing concurrently herewith a Submission of Formal Drawings which includes the March 6<sup>th</sup> now approved drawing correction.

In the objection to the drawings, the Examiner contends that the drawings do not show every feature specified in the claims. In particular, the Examiner alleges that first lower wire(s) disposed obliquely below the first upper wire(s) recited in claims 32 and 40

is not illustrated in the drawings (Office Action, p. 3). Applicants respectfully traverse this objection.

Applicants submit that the subject matter recited in claims 32 and 40 may be found, for example, in Figs. 14A, 14B, and 14C. Fig. 14A illustrates an aspect consistent with the present invention in which a lower wire 6 is formed obliquely below (shifted relative to) an upper wire 22 (See also specification at p. 11). Thus, Applicants submit that Fig. 14A illustrates the subject matter recited in claims 32 and 40.

In making the various references to the specification and drawings set forth above and below, it is to be understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments shown in the drawings and described in the specification. Rather, Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation and applicable case law.

**Response to 35 U.S.C. § 112, first paragraph, Rejections**

In this rejection, the Examiner contends that claims 1, 2, 5-23, 31, 32, 34, 40, and 42 contain subject matter which is not described in the specification in such a way as to reasonably convey to one skilled in the art that Applicants, at the time the application was filed, had possession of the claimed invention. More particularly, the Examiner alleges that the phrase "formed on an extension" recited in claims 1, 2, 31, 34, and 42 is not disclosed in the specification (Office Action, pp. 3 and 4). The Examiner also alleges that the subject matter recited in claim 5 is not disclosed in the specification (Office Action, p. 4). The Examiner further alleges that the first lower wire being obliquely below the first upper wire recited in claims 32 and 40 is not disclosed in the specification (Office Action, p 4).

Applicants propose amending claims 1, 2, 31, 34, and 42 to change the phrase "on an extension of" to --on an extension line of--. Upon entry of this amendment, claim 1 will recite, *inter alia*, "a third conductor including a first wire formed on [a] first insulating film and [a] first plug and a second wire formed on an extension line of the first wire on said first insulating film and [a] second plug." A description of this subject matter may be found, for example, in Figs. 2A, 2B, and related text. Specifically, Fig. 2A illustrates that a second wire 22 is formed on an extension line of a first wire 22 in a semiconductor device. In other words, the pair of wires 22 are formed opposite to each other. A description of the subject matter recited in claim 2 may also be found, for example, in Figs. 2A, 2B, and related text. Likewise, a description of the subject matter recited in claims 31, 34, and 42 may be found, for example, in Figs. 10A, 10B, 12A, 12B, 15A, 15B, and related text. Therefore, Applicants request that the Examiner enter these amendments and withdraw the rejection of claims 1, 2, 6-23, 31, 34, and 42.

Furthermore, Applicants propose amending claim 5 to clarify the subject matter recited therein. Upon entry of this amendment, claim 5 will recite, *inter alia*, "a fifth plug lined up on a first straight line with the first plug and the third plug on said first conductor through said first insulating film and a sixth plug lined up on a second straight line with the second plug and the fourth plug on said first conductor through said first insulating film." A description of this subject matter may be found, for example, in Figs. 2A, 2B, 2C, and 3C. Thus, Applicants request that the Examiner, upon entry of this Amendment, withdraw the rejection of claim 5.

Regarding claims 32 and 40, Applicants respectfully traverse the rejection of these claims. Applicants submit that the subject matter recited in claims 32 and 40 may

be found, for example, in Fig. 14A. Fig. 14A illustrates an aspect of the present invention in which a lower wire 6 is formed obliquely below (shifted relative to) an upper wire 22 (See also specification at p. 11). Thus, Applicants submit that the specification fully discloses the subject matter recited in claims 32 and 40. Hence, Applicants request that the Examiner withdraw the rejection of claims 32 and 40.

**Response to 35 U.S.C. § 112, second paragraph, Rejections**

The Examiner contends that claims 36, 37, 38-40, and 44 fail to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. More particularly, the Examiner alleges that the phrase "said first conductors alternated on two parallel lines" recited in claim 36 is vague (Office Action, p. 4). Also, the Examiner alleges that similar recitations in claims 38 and 44 are vague (Office Action, p. 5).

Applicants propose amending claims 36, 38, and 44 to change the alleged vague phrase to "alternated on two parallel rows." The specification at page 5, line 27, recites "[t]he folded fuses are arranged in two parallel rows." Considering this amendment, Applicants respectfully submit that claims 36, 38, and 44 are definite.

**Response to 35 U.S.C. § 102(e) Rejections**

The Examiner rejected claim 33 under 35 U.S.C. § 102(e) as anticipated by Huang. More particularly, the Examiner alleges that Huang teaches a semiconductor device comprising a first insulating film formed on a substrate, a first conductor formed on the substrate extending through the first insulating film, a first upper wire, and a second insulating film on the first upper wire (Office Action, pp. 5 and 6). In response, Applicants respectfully assert that Huang fails to anticipate claim 33 for the following reasons.

In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(e), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131 (8<sup>th</sup> Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131, p. 2100-69.

Contrary to the Examiner's allegations, Huang does not disclose at least that "a first conductor [is] formed on [a] semiconductor substrate," as recited in claim 33. Huang discloses that W plugs 26 are formed on conductive strips that are formed on a substrate 10. See Huang, Fig 5. However, substrate 10, as described by Huang, is not a semiconductor substrate as recited in claim 33. If substrate 10 were a semiconductor substrate, first and second conductive strips 20A, 20B would short-circuit via substrate 10. By this short circuit, plug fuse 58B would not serve as a fuse as recited in claim 33 because there would not be an open circuit between first and second conductive strips 20A, 20B, even if plug fuse 58B opens. See Huang, col. 5, lines 37-52.

Therefore, Huang fails to teach all the elements recited in claim 33. Thus, Huang does not anticipate claim 33. For at least this reason, claim 33 is allowable.

### **Conclusion**

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1, 2, 5-23, and 30-44 in condition for allowance. Applicants submit that the proposed amendments of claims 1, 2, 5, 31, 34, 36, 38, 42 and 44 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their

relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants submit that the entry of the Amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

Attached hereto is a marked-up version of the changes made to the claims by this Amendment. The attachment is captioned "Appendix to Amendment after Final of September 6, 2002".

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: September 6, 2002

By: 

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**Appendix to Amendment after Final of September 6, 2002**

1. (Twice Amended) A semiconductor device comprising:

a first conductor;

a first insulating film formed on said first conductor;

a second conductor including a first plug and a second plug formed on said first conductor through said first insulating film;

a third conductor including a first wire formed on said first insulating film and the first plug and a second wire formed on an extension line of the first wire on said first insulating film and the second plug; and

a second insulating film formed on said third conductor and over said first insulating film, said second insulating film including a thin area over said second conductor for guiding a laser beam.

2. (Twice Amended) The semiconductor device of claim 1, wherein:

said second conductor includes a third plug and a fourth plug formed on said first conductor through said first insulating film; and

said third conductor includes a third wire formed parallel with the first wire on said first insulating film and the third plug and a fourth wire formed on an extension line of the third wire on said first insulating film and the fourth plug.

5. (Twice Amended) The semiconductor device of claim 2, wherein:

said second conductor includes a fifth plug lined up [formed] on a first straight line with [connecting] the first plug and the third plug on said first conductor through said

first insulating film and a sixth plug lined up [formed] on a second straight line with [connecting] the second plug and the fourth plug on said first conductor through said first insulating film.

31. (Amended) The semiconductor device of claim 30, further comprising:

a second lower wire formed on an extension line of said first lower wire on said first insulating film beneath said second insulating film;

a second conductor formed through said second insulating film below the thin area including a third portion formed on said second lower wire made of a same material as the first portion and a fourth portion formed on the third portion made of a same material as the second portion; and

a second upper wire formed parallel with said second lower wire on said second insulating film and said second conductor beneath said third insulating film.

34. (Amended) The semiconductor device of claim 33, further comprising:

a second conductor formed on said semiconductor substrate through said first insulating film below the thin area; and

a second upper wire formed on an extension line of said first upper wire on said first insulating film and said second conductor beneath said second insulating film.

36. (Amended) A semiconductor device comprising:

a semiconductor substrate;

a first insulating film formed on said semiconductor substrate;



first conductors formed on said semiconductor substrate through said first insulating film;

first upper wires formed on said first insulating film and said first conductors alternated on two parallel rows [lines] such that ends of said first upper wires on one of the parallel rows [lines] oppose ends of said first upper wires on the other of the parallel rows [lines]; and

a second insulating film formed on said first upper wires and over said first insulating film, said second insulating film including a thin area over said first conductors for guiding a laser beam.

38. (Amended) A semiconductor device comprising:

a first insulating film;

first lower wires formed on said first insulating film alternated on two parallel rows [lines] such that ends of said first lower wires on one of the parallel rows [lines] oppose ends of said first lower wires on the other of the parallel rows [lines];

a second insulating film formed on said first lower wires;

first conductors formed on said first lower wires through said second insulating film;

first upper wires formed parallel with said first lower wires on said second insulating film and said first conductors; and

a third insulating film formed on said first upper wires and over said second insulating film, said third insulating film including a thin area over said first conductors for guiding a laser beam.

42. (Amended) The semiconductor device of claim 41, further comprising:  
a second lower wire formed parallel with said first lower wire on said first insulating film beneath said second insulating film;  
a third conductor formed on said second lower wire below the thin area through said second insulating film;  
a fourth conductor formed on said second lower wire below the thin area through said second insulating film;  
a third upper wire formed on an extension line of said first upper wire on said second insulating film and said third conductor beneath said third insulating film; and  
a fourth upper wire formed on an extension line of said second upper wire on said second insulating film and said fourth conductor beneath said third insulating film[;].

44. (Amended) The semiconductor device of claim 42, wherein  
said first, second, third and fourth upper wires are alternated on two parallel rows [lines] such that ends of said first and second upper wires on one of the parallel rows [lines] oppose to ends of said third and fourth upper wires on the other of the parallel rows [lines].